

who found the agglutinating principle present in antitoxin and in the serum of two men treated with antitoxin, but not in the serum of diphtheria patients who had not received injections of serum. In his series the author tested the serum of seven patients before they had received an injection of antitoxin, with positive results, differing in this respect from the results of Nicolas. In the whole series there were only two negative results. Agglutination was produced by dilutions ranging from 10 to 400. The same method was followed as in the Widal test. Cultures of twelve to sixteen hours were used, as older cultures gave pseudo-agglutination. A longer time is required for the reaction than in Widal's test. This is explained by the non-motility of the diphtheria bacillus. The diminution of the motility of the germs, so characteristic in the typhoid test, is of necessity wanting in this; the germs collect in small clumps, with the interspaces entirely free from bacilli. A direct proportion between the strength of the agglutinating power and the severity or length of the disease could not be proved. The following are the author's conclusions: Agglutination shows itself in the serum of patients sick with diphtheria, as also in antitoxin. Its presence is not constant for all diphtheria cultures and diphtheria serums. A clinical diagnosis by means of serum is impossible. A separation of diphtheria and pseudo-diphtheria bacilli by means of the specific immunity reaction is not possible. The pure, undiluted diphtheria serum possesses *in vitro* a slight power to limit the growth of diphtheria or pseudo-diphtheria bacilli, but no germicidal power.

Thyroid Gland and Myxœdema.—MENKE (*Berliner klin. Wochenschrift*, 1898, No. 51) discusses the supposed relation between myxœdema and the thyroid gland. He believes that we must go further back than the thyroid to find the cause of myxœdema, and thinks that perhaps in disease of the vascular system, with its associated disturbances of nutrition, we shall find the solution. Because of the striking similarity between old age and myxœdema, Vermehren believes that old age is a chronic myxœdema following degeneration of the gland, while myxœdema in the young is a premature senility. In both we find rough and dry skin, disturbed nutrition of the nails, teeth, and hair; slowness in speech, thought, comprehension, and movement; general anæmia; often psychical disturbances and subnormal temperature, with very little tolerance against cold. The author takes issue with English writers, who believe that myxœdema is entirely dependent upon alterations in the thyroid gland. If this were so the disease ought frequently to be present in old age, since at this time of life atrophy of the gland is the rule; also it should follow suppuration of the thyroid, gangrenous thyroiditis, interalveolar sarcoma and carcinoma, and the more rare diseases of the thyroid, such as syphilis, tuberculosis, and echinococcus. In none of the cases reported were there symptoms of myxœdema. Mordret found in 131 autopsies on insane patients thirty-four cases of atrophy of the gland, and in none of them myxœdema. Naumann collected 408 cases of total extirpation of the thyroid; 309 remained well, twenty-six died of tetany, sixty-eight of myxœdema, four of tetany and myxœdema. Undoubtedly in some of the 309 cases there were accessory thyroids or remnants of the gland, but it is out of the question that this should happen in all of them. The

author reasons that if total extirpation is not always followed by myxœdema the thyroid cannot be the cause of myxœdema, or the gland must share its function with some other organ. He believes that disease of the circulatory system is the cause of this condition, and mentions especially the alterations of the capillaries, the arteritis, with atheromatous or amyloid degeneration and perivascular hemorrhages, so often noted.

[The author's recommendation that in future autopsies the condition of the vessels be more carefully examined, is valuable; but his criticism, while ingenious, leaves out of sight one of the most important grounds for looking on the thyroid alteration as the most important, viz., the results of treatment. His conception contains a hiatus that makes it useless as a working hypothesis.—G. D.]

Suprarenal Gland Extract as a Hæmostatic.—LERMITTE (*The British Medical Journal*, February 25, 1899, p. 467) says that the vaso-constrictor and hæmostatic action of the extract of the suprarenal glands has repeatedly been demonstrated in ocular and nasal surgery and in the treatment of skin diseases. A case of persistent epistaxis occurring in his own practice would seem to demonstrate another valuable practical use to which the drug may be applied. The patient was a boy, aged six years, who had suffered from severe epistaxis which had developed during the convalescence from a severe attack of diphtheria in 1894. Since then, and up to September, 1898, when he came under Lermite's care, he had had on an average from three to four severe hemorrhages weekly. Various forms of constitutional, but no local treatment had been used without beneficial effect. Examination of the nasal mucous membrane showed a dilated and angiomatous condition of the blood-vessels. On September 17, 1898, Lermite commenced treating the nose locally by inserting into each nostril a pledget of cotton-wool soaked in a 5 per cent. solution of cocaine, leaving them *in situ* for five minutes. On withdrawing these, similar pledgets, soaked in a saturated solution of boric acid containing five grains of dried extract of suprarenal gland to the ounce were inserted and left in for the same time. These applications were made on alternate days until October 7th (three weeks), then on every third day till October 31st (three weeks), and afterward on every fourth day up to November 22d, making in all twenty-four applications.

The immediate effect on the nasal mucous membrane was to produce a condition of ischæmia, and the epistaxis was immediately stopped. Up to the time of writing there had been no return of the epistaxis since the first application was made.

Palpatory Percussion, Etc.—E. BAELZ (*Berliner klin. Wochenschrift*, 1898, No. 48) publishes some practical observations in physical diagnosis. He draws the conclusion from its variety of forms and material that the plessimeter is of more than doubtful value, and in practice is well replaced by the finger. Similar objections have also made him give up the percussion hammer. He calls especial attention to the subject of palpatory percussion. This has not been used as much as it deserves, for two reasons: In the first place, because it has been used chiefly on an organ to which it is least applicable—*i. e.*, the heart; and, secondly, because its technique has not been understood.